

Remarks

The Applicants have amended Claim 1 to include the subject matter of Claims 2 and 3. Claims 2 and 3 have accordingly been cancelled.

Claim 4 has been amended for clarification purposes.

Claim 15 has been added. It recites that the container for the solution has a convex-concave structure and the selective binding substance is immobilized under the container convexes. Support may be found in the Applicants' specification in paragraph [0068] as well as Fig. 2.

Entry of the above changes into the official file is respectfully requested.

Claims 1-14 stand rejected under 35 USC §103 over Tashiro. The Applicants respectfully submit that Tashiro fails to disclose, teach or suggest the subject matter of those claims. Also, the Applicants respectfully submit that they have discovered an unexpected result over the teachings of Tashiro.

Tashiro discloses a method of moving magnetic beads in the upper part of a reaction vessel by imparting a magnetic field fluctuation without allowing the beads to contact the DNA-immobilized surface. However, Tashiro does not disclose, teach or suggest a reaction vessel having a structure such that the beads do not contact the surface. In that regard, the rejection recognizes the reliance on such magnetism. However, the Applicants' respectfully submit that such magnetism is completely different from the Applicants' claimed process, wherein the fine particles or air bubbles are moved within the carrier and/or the container which have structures that prevent the fine particles or air bubbles from contacting the selective binding substance-immobilized surface. Thus, there is no disclosure in Tashiro that would provide guidance to one skilled in the art as to how to achieve the prevention of contact by structural means, as opposed to magnetic means. Thus, the Applicants respectfully submit that Tashiro is inapplicable.

However, as noted above, the Applicants have discovered an unexpected phenomenon. This is demonstrated by the Applicants' Comparative Example 6. Comparative Example 6 in the Applicants' specification is quite similar to the method disclosed by Tashiro. In that Comparative Example, a flat carrier without a convex-concave structure and a cover glass as a container for a solution were used. The solution was stirred by magnetic beads which were attracted onto the cover glass face placed downward by a magnetic field. The results were that the magnetic beads were

aggregated and solidified by a magnetic field and the aggregated beads came into contact with the probe-immobilized surface of the carrier. The surface was damaged as a consequence by contact of the aggregated beads. This resulted in only a low fluorescence intensity.

The Applicants respectfully submit that the teachings of Comparative Example 6 are substantially equivalent to the disclosure of Tashiro which relies on magnetism. However, the Applicants surprisingly found that magnetism has serious problems as outlined above. This is in sharp contrast to the Applicants' methodology, wherein the fine particles or air bubbles are moved within the carrier and/or container which have structures such that the fine particles or air bubbles do not contact the selective binding substance-immobilized surface. The Applicants' examples clearly show that this can be done without damage to the surfaces, thereby resulting in excellent fluorescence intensity. The Applicants therefore respectfully submit that Tashiro is additionally inapplicable for this reason. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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